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EXAMINER

CHOI, MICHAEL P

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/501,543	Applicant(s) KANEGAE ET AL.	
	Examiner Michael Choi	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15-28 is/are pending in the application.
- 4a) Of the above claim(s) 1-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 15-28 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION***Double Patenting***

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 15-28 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 6-17 of U.S. Patent No. 6,985,411 and claims in view of Murase.

Claims 15-28 of the instant application in view of '411 encompasses the subject matter of claims 1 and 6-17, but fails to further cover the Pre command information and the Post command information including a command table on which a command group comprising zero, one or more statements are written, the Pre command information including a Pre command pointer which is written separately from the command table and which specifies the address of the command to be executed before the reproduction included in the command table, the Post command information including a Post command pointer which is written separately from the command table and which specifies the address of the command to be executed after the

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reproduction included in the command table, and the Pre command information and the Post command information including a command pointer which specifies the address of each of the Pre command pointer and the Post command pointer.

Therefore, Claims 15-28 of the instant application teach,

- the Pre command information and the Post command information including a command table on which a command group comprising zero, one or more statements are written (Fig. 12A – PGC command table having Fig. 17 – VOB address information table; Col. 22, lines 26-40+),
- the Pre command information including a Pre command pointer which is written separately from the command table and which specifies the address of the command to be executed before the reproduction included in the command table (Fig. 17 – pre-processing command start address pointer; Col. 22, lines 26-40+),
- the Post command information including a Post command pointer which is written separately from the command table and which specifies the address of the command to be executed after the reproduction included in the command table (Fig. 17 – post-processing command start address pointer; Col. 22, lines 26-40+), and
- the Pre command information and the Post command information including a command pointer which specifies the address of each of the Pre command pointer and the Post command pointer (in at least Col. 20, lines 18-39+; Col. 22, lines 26-40+; Figs. 12B, 17 – VOB address information table as well as pre/post-processing command start address pointers),

wherein it would have been obvious to one of ordinary skill in the art at the time the invention was made to have such Pre and Post command information pointers so as to mark

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position at which specified functions began and stopped in regard to a program chain for future references.

3. Claims 15-28 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 18-21 of copending Application No. 11/043,048 and claims 18-34 of copending Application No. 11/043,096 in view of Murase et al.

Claims 15-28 of the instant application in view of 11/043,048 encompasses the subject matter of claims 1 and 6-17, but fails to further cover Pre command information which indicates a command to be executed before the reproduction based on the one play list information, and (iii) Post command information which indicates a command to be executed after the reproduction based on the one play list information; and the Pre command information and the Post command information including a command table on which a command group comprising zero, one or more statements are written, the Pre command information including a Pre command pointer which is written separately from the command table and which specifies the address of the command to be executed before the reproduction included in the command table, the Post command information including a Post command pointer which is written separately from the command table and which specifies the address of the command to be executed after the reproduction included in the command table, and the Pre command information and the Post command information including a command pointer which specifies the address of each of the Pre command pointer and the Post command pointer.

Therefore, Claims 15-28 of the instant application teach,

- (ii) Pre command information which indicates a command to be executed before the reproduction based on the one play list information (in at least Col. 20, lines 18-39+; Figs. 12B, 17 – pre-processing command), and

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- (iii) Post command information which indicates a command to be executed after the reproduction based on the one play list information (in at least Col. 20, lines 18-39+; Figs. 12B, 17 – post-processing command)
- the Pre command information and the Post command information including a command table on which a command group comprising zero, one or more statements are written (Fig. 12A – PGC command table having Fig. 17 – VOB address information table; Col. 22, lines 26-40+),
- the Pre command information including a Pre command pointer which is written separately from the command table and which specifies the address of the command to be executed before the reproduction included in the command table (Fig. 17 – pre-processing command start address pointer; Col. 22, lines 26-40+),
- the Post command information including a Post command pointer which is written separately from the command table and which specifies the address of the command to be executed after the reproduction included in the command table (Fig. 17 – post-processing command start address pointer; Col. 22, lines 26-40+), and
- the Pre command information and the Post command information including a command pointer which specifies the address of each of the Pre command pointer and the Post command pointer (in at least Col. 20, lines 18-39+; Col. 22, lines 26-40+; Figs. 12B, 17 – VOB address information table as well as pre/post-processing command start address pointers),

wherein it would have been obvious to one of ordinary skill in the art at the time the invention was made to have such Pre and Post command information pointers so as to mark position at which specified functions began and stopped in regard to a program chain for future references.

Further, claims 15-28 of the instant application in view of 11/043,096 encompasses the subject matter of claims 1 and 6-17, but fails to further cover Pre command information which indicates a command to be executed before the reproduction based on the one play list information, and (iii) Post command information which indicates a command to be executed after the reproduction based on the one play list information; and the Pre command information and the Post command information including a command table on which a command group comprising zero, one or more statements are written, the Pre command information including a Pre command pointer which is written separately from the command table and which specifies the address of the command to be executed before the reproduction included in the command table, the Post command information including a Post command pointer which is written separately from the command table and which specifies the address of the command to be executed after the reproduction included in the command table, and the Pre command information and the Post command information including a command pointer which specifies the address of each of the Pre command pointer and the Post command pointer.

Therefore, Claims 15-28 of the instant application teach,

- (ii) Pre command information which indicates a command to be executed before the reproduction based on the one play list information (in at least Col. 20, lines 18-39+; Figs. 12B, 17 – pre-processing command), and
- (iii) Post command information which indicates a command to be executed after the reproduction based on the one play list information (in at least Col. 20, lines 18-39+; Figs. 12B, 17 – post-processing command)
- the Pre command information and the Post command information including a command table on which a command group comprising zero, one or more statements are written

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(Fig. 12A – PGC command table having Fig. 17 – VOB address information table; Col. 22, lines 26-40+),

- the Pre command information including a Pre command pointer which is written separately from the command table and which specifies the address of the command to be executed before the reproduction included in the command table (Fig. 17 – pre-processing command start address pointer; Col. 22, lines 26-40+),
- the Post command information including a Post command pointer which is written separately from the command table and which specifies the address of the command to be executed after the reproduction included in the command table (Fig. 17 – post-processing command start address pointer; Col. 22, lines 26-40+), and
- the Pre command information and the Post command information including a command pointer which specifies the address of each of the Pre command pointer and the Post command pointer (in at least Col. 20, lines 18-39+; Col. 22, lines 26-40+; Figs. 12B, 17 – VOB address information table as well as pre/post-processing command start address pointers),

wherein it would have been obvious to one of ordinary skill in the art at the time the invention was made to have such Pre and Post command information pointers so as to mark position at which specified functions began and stopped in regard to a program chain for future references.

This is a provisional obviousness-type double patenting rejection.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

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Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 15-18 and 25-28 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

Nonfunctional descriptive material that does not constitute a statutory process, machine, manufacture or composition of matter and should be rejected under 35 U.S.C. Sec. 101. Certain types of descriptive material, such as music, literature, art, photographs, and mere arrangements or compilations of facts or data, without any functional interrelationship is not a process, machine, manufacture or composition of matter. USPTO personnel should be prudent in applying the foregoing guidance. Nonfunctional descriptive material may be claimed in combination with other functional descriptive multimedia material on a computer-readable medium to provide the necessary functional and structural interrelationship to satisfy the requirements of 35 U.S.C. Sec. 101. The presence of the claimed nonfunctional descriptive material is not necessarily determinative of nonstatutory subject matter. For example, a computer that recognizes a particular grouping of musical notes read from memory and upon recognizing that particular sequence, causes another defined series of notes to be played, defines a functional interrelationship among that data and the computing processes performed when utilizing that data, and as such is statutory because it implements a statutory process.

Claims 15-18 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows. Claims 15-18 recite a recording medium which does not impart functionality to a computer or computing device, and is thus considered nonfunctional descriptive material. Such nonfunctional descriptive material, in the absence of a functional interrelationship with a computer, does not constitute a statutory process, machine, manufacture or composition of matter and is thus non-statutory per se. Claims 16-18 inherit the deficiencies of claim 15 due to its dependency of such claim.

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Claims 25-27 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows. Claims 25-27 recite a computer program product which does not impart functionality to a computer or computing device, and is thus considered nonfunctional descriptive material. Such nonfunctional descriptive material, in the absence of a functional interrelationship with a computer, does not constitute a statutory process, machine, manufacture or composition of matter and is thus non-statutory per se.

Claim 28 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows. Claim 28 recites a data structure including a control signal which does not impart functionality to a computer or computing device, and is thus considered nonfunctional descriptive material *as well as* encompassing non-statutory subject matter such as a signal. Such nonfunctional descriptive material, in the absence of a functional interrelationship with a computer, does not constitute a statutory process, machine, manufacture or composition of matter and is thus non-statutory per se. A "signal", even embodying functional descriptive material is neither a process nor a product and therefore does not fall within one of the four statutory classes of § 101. Rather, a signal is a form of energy.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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7. Claims 15 -28 are rejected under 35 U.S.C. 102(b) as being anticipated by Murase et al. (US 5,907,658 B1).

Regarding Claim 15, Murase et al. teaches an information recording medium on which one or a plurality of titles, each of which is a logically-grouped information unit, are recorded (Fig. 2A – recording medium having volume area, Fig. 4A with logical blocks of various title sets, Fig. 4B; recording by device Figs. 22 and 24), said information recording medium comprising:

- an object data file for storing object data which constitutes a series of content information (Fig. 5 – each title set containing various VOB);
- a play list information file for storing a plurality of play list information which defines a reproduction sequence of the object data stored in said object data file by a unit of play list which is logically accessible (in at least Figs. 12A, 15A, 16 – program chains for each title set); and
- a disc information file for storing a plurality of information groups including, as reproduction control information for controlling the reproduction of said object data file (Fig. 12A - video title set management information),
 - (i) play list specification information for specifying one play list information which defines the play list to be reproduced from among the plurality of play list information stored in said play list information file (in at least Figs. 12A and 12B - specifying specific program chain from PGC management information table),
 - (ii) Pre command information which indicates a command to be executed before the reproduction based on the one play list information (in at least Col. 20, lines 18-39+; Figs. 12B, 17 – pre-processing command), and

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- (iii) Post command information which indicates a command to be executed after the reproduction based on the one play list information (in at least Col. 20, lines 18-39+; Figs. 12B, 17 – post-processing command),
- the title being logically comprising one or more than one of the plurality of information groups (Figs. 4A and 4B),
- the Pre command information and the Post command information including a command table on which a command group comprising zero, one or more statements are written (Fig. 12A – PGC command table having Fig. 17 – VOB address information table; Col. 22, lines 26-40+),
- the Pre command information including a Pre command pointer which is written separately from the command table and which specifies the address of the command to be executed before the reproduction included in the command table (Fig. 17 – pre-processing command start address pointer; Col. 22, lines 26-40+),
- the Post command information including a Post command pointer which is written separately from the command table and which specifies the address of the command to be executed after the reproduction included in the command table (Fig. 17 – post-processing command start address pointer; Col. 22, lines 26-40+),
- the Pre command information and the Post command information including a command pointer which specifies the address of each of the Pre command pointer and the Post command pointer (in at least Col. 20, lines 18-39+; Col. 22, lines 26-40+; Figs. 12B, 17 – VOB address information table as well as pre/post-processing command start address pointers).

Regarding Claim 16, Murase et al. teaches the information recording medium according to claim 15, wherein the object data is constructed such that an entire stream including a plurality of portion streams, each of which comprises the content information, is multiplexed by a unit of packet, which is a physically accessible unit and which stores therein a piece of the content information (Fig. 24, 86; Fig. 25, 120 – signal separating unit separating video, audio, and management pack information, etc. to respective buffer memories; Figs. 26 and 26), said information recording medium further comprising an object information file for storing correspondence definition information which defines the correspondence relationship between a plurality of packets to be multiplexed and the plurality of portion streams as another reproduction control information for controlling the reproduction of said object data file (Fig. 24, 86; Fig. 25, 120 – signal separating unit separating video, audio, and management pack information, etc. to respective buffer memories; Figs. 26 and 26; Col. 29, lines 7-34+).

Regarding Claim 17, Murase et al. teaches the information recording medium according to claim 16, wherein said play list information file is collectively recorded in one area on said information recording medium (Fig. 26 – storage of program chain in PGC information buffer, 31), said disc information file is collectively recorded in another area on said information recording medium (Fig. 25 – storage in buffer memory of VOB), and said object information file is collectively recorded in another area on said information recording medium (Fig. 26 – storage of management information in management information pack buffer, 95).

Regarding Claim 18, Murase et al. teaches the information recording medium according to claim 15, wherein said play list information file is collectively recorded in one area on said information recording medium (Fig. 26 – storage of program chain in PGC information buffer,

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31), and said disc information file is collectively recorded in another area on said information recording medium (Fig. 25 – storage in buffer memory of VOB).

Regarding Claim 19, Murase et al. teaches an information recording apparatus for recording one or a plurality of titles, each of which is a logically-grouped information unit, onto an information recording medium (Fig. 2A – recording medium having volume area, Fig. 4A with logical blocks of various title sets, Fig. 4B; recording by device Figs. 22 and 24), said information recording apparatus comprising:

- a first recording device for recording an object data file for storing object data which constitutes a series of content information (Fig. 25 – storage in buffer memory of VOB);
- a second recording device for recording a play list information file for storing a plurality of play list information which defines a reproduction sequence of the object data stored in said object data file by a unit of play list which is logically accessible (Fig. 26 – storage of program chain in PGC information buffer, 31); and
- a third recording device for recording a disc information file for storing a plurality of information groups including, as reproduction control information for controlling the reproduction of said object data file (Fig. 26 – storage of management information in management information pack buffer, 95),
 - (i) play list specification information for specifying one play list information which defines the play list to be reproduced from among the plurality of play list information stored in said play list information file (in at least Figs. 12A and 12B - specifying specific program chain from PGC management information table),

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- (ii) Pre command information which indicates a command to be executed before the reproduction based on the one play list information (in at least Col. 20, lines 18-39+; Figs. 12B, 17 – pre-processing command), and
 - (iii) Post command information which indicates a command to be executed after the reproduction based on the one play list information (in at least Col. 20, lines 18-39+; Figs. 12B, 17 – post-processing command),
- the title being logically comprising one or more than one of the information groups (Figs. 4A and 4B),
- the Pre command information and the Post command information including a command table on which a command group comprising zero, one or more statements are written (Fig. 12A – PGC command table having Fig. 17 – VOB address information table; Col. 22, lines 26-40+),
- the Pre command information including a Pre command pointer which is written separately from the command table and which specifies the address of the command to be executed before the reproduction included in the command table (Fig. 17 – pre-processing command start address pointer; Col. 22, lines 26-40+),
- the Post command information including a Post command pointer which is written separately from the command table and which specifies the address of the command to be executed after the reproduction included in the command table (Fig. 17 – post-processing command start address pointer; Col. 22, lines 26-40+),
- the Pre command information and the Post command information including a command pointer which specifies the address of each of the Pre command pointer and the Post command pointer (in at least Col. 20, lines 18-39+; Col. 22, lines 26-40+; Figs. 12B, 17 –

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VOB address information table as well as pre/post-processing command start address pointers).

Regarding Claim 20, Murase et al. teaches an information recording method of recording one or a plurality of titles, each of which is a logically-grouped information unit, onto an information recording medium (Fig. 2A – recording medium having volume area, Fig. 4A with logical blocks of various title sets, Fig. 4B; recording by device Figs. 22 and 24), said information recording method comprising:

- a first recording process of recording an object data file for storing object data which constitutes a series of content information (Fig. 25 – storage in buffer memory of VOB);
- a second recording process of recording a play list information file for storing a plurality of play list information which defines a reproduction sequence of the object data stored in said object data file by a unit of play list which is logically accessible (Fig. 26 – storage of program chain in PGC information buffer, 31); and
- a third recording process of recording a disc information file for storing a plurality of information groups including, as reproduction control information for controlling the reproduction of said object data file (Fig. 26 – storage of management information in management information pack buffer, 95),
 - (i) play list specification information for specifying one play list information which defines the play list to be reproduced from among the plurality of play list information stored in said play list information file (in at least Figs. 12A and 12B - specifying specific program chain from PGC management information table),

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- (ii) Pre command information which indicates a command to be executed before the reproduction based on the one play list information (in at least Col. 20, lines 18-39+; Figs. 12B, 17 – pre-processing command), and
 - (iii) Post command information which indicates a command to be executed after the reproduction based on the one play list information (in at least Col. 20, lines 18-39+; Figs. 12B, 17 – post-processing command),
- the title being logically comprising one or more than one of the information groups (Figs. 4A and 4B),
- the Pre command information and the Post command information including a command table on which a command group comprising zero, one or more statements are written (Fig. 12A – PGC command table having Fig. 17 – VOB address information table; Col. 22, lines 26-40+),
- the Pre command information including a Pre command pointer which is written separately from the command table and which specifies the address of the command to be executed before the reproduction included in the command table (Fig. 17 – pre-processing command start address pointer; Col. 22, lines 26-40+),
- the Post command information including a Post command pointer which is written separately from the command table and which specifies the address of the command to be executed after the reproduction included in the command table (Fig. 17 – post-processing command start address pointer; Col. 22, lines 26-40+),
- the Pre command information and the Post command information including a command pointer which specifies the address of each of the Pre command pointer and the Post command pointer (in at least Col. 20, lines 18-39+; Col. 22, lines 26-40+; Figs. 12B, 17 –

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VOB address information table as well as pre/post-processing command start address pointers).

Regarding Claim 21, Murase et al. teaches an information reproducing apparatus for reproducing at least one portion of recorded titles from an information recording medium on which one or the plurality of titles, each of which is a logically-grouped information unit, are recorded (Fig. 2A – recording medium having volume area, Fig. 4A with logical blocks of various title sets, Fig. 4B; recording by device Figs. 22 and 24; Col. 4, lines 40-60+, and playback), said information recording medium comprising:

- an object data file for storing object data which constitutes a series of content information (Fig. 5 – each title set containing various VOB);
- a play list information file for storing a plurality of play list information which defines a reproduction sequence of the object data stored in said object data file by a unit of play list which is logically accessible (in at least Figs. 12A, 15A, 16 – program chains for each title set); and
- a disc information file for storing a plurality of information groups including, as reproduction control information for controlling the reproduction of said object data file (Fig. 12A - video title set management information),
 - (i) play list specification information for specifying one play list information which defines the play list to be reproduced from among the plurality of play list information stored in said play list information file (in at least Figs. 12A and 12B - specifying specific program chain from PGC management information table),

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- (ii) Pre command information which indicates a command to be executed before the reproduction based on the one play list information (in at least Col. 20, lines 18-39+; Figs. 12B, 17 – pre-processing command), and
 - (iii) Post command information which indicates a command to be executed after the reproduction based on the one play list information (in at least Col. 20, lines 18-39+; Figs. 12B, 17 – post-processing command),
- the title being logically comprising one or more than one of the plurality of information groups (Figs. 4A and 4B),
- the Pre command information and the Post command information including a command table on which a command group comprising zero, one or more statements are written (Fig. 12A – PGC command table having Fig. 17 – VOB address information table; Col. 22, lines 26-40+),
- the Pre command information including a Pre command pointer which is written separately from the command table and which specifies the address of the command to be executed before the reproduction included in the command table (Fig. 17 – pre-processing command start address pointer; Col. 22, lines 26-40+),
- the Post command information including a Post command pointer which is written separately from the command table and which specifies the address of the command to be executed after the reproduction included in the command table (Fig. 17 – post-processing command start address pointer; Col. 22, lines 26-40+),
- the Pre command information and the Post command information including a command pointer which specifies the address of each of the Pre command pointer and the Post command pointer (in at least Col. 20, lines 18-39+; Col. 22, lines 26-40+; Figs. 12B, 17 –

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VOB address information table as well as pre/post-processing command start address pointers),

- said information reproducing apparatus comprising:
 - a reading device for physically reading information from said information recording medium (Figs. 13, 24 – optical disc drive physically reading on device PGC information #1); and
 - a reproducing device for reproducing the object data included in the information read by said reading device, on the basis of the reproduction control information and the play list information included in the information read by said reading device (Figs. 13, 24 – optical disc drive physically reading on device PGC information #1 to video and audio output; Fig. 22).

Regarding Claim 22, Murase et al. teaches an information reproducing method of reproducing at least one portion of recorded titles from an information recording medium on which one or the plurality of titles, each of which is a logically-grouped information unit, are recorded (Fig. 2A – recording medium having volume area, Fig. 4A with logical blocks of various title sets, Fig. 4B; recording by device Figs. 22 and 24; Col. 4, lines 40-60+, and playback), said information recording medium comprising:

- an object data file for storing object data which constitutes a series of content information (Fig. 5 – each title set containing various VOB);
- a play list information file for storing a plurality of play list information which defines a reproduction sequence of the object data stored in said object data file by a unit of play list which is logically accessible (in at least Figs. 12A, 15A, 16 – program chains for each title set); and

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- a disc information file for storing a plurality of information groups including, as reproduction control information for controlling the reproduction of said object data file (Fig. 12A - video title set management information),
 - (i) play list specification information for specifying one play list information which defines the play list to be reproduced from among the plurality of play list information stored in said play list information file (in at least Figs. 12A and 12B - specifying specific program chain from PGC management information table),
 - (ii) Pre command information which indicates a command to be executed before the reproduction based on the one play list information (in at least Col. 20, lines 18-39+; Figs. 12B, 17 – pre-processing command), and
 - (iii) Post command information which indicates a command to be executed after the reproduction based on the one play list information (in at least Col. 20, lines 18-39+; Figs. 12B, 17 – post-processing command),
- the title being logically comprising one or more than one of the plurality of information groups (Figs. 4A and 4B),
- the Pre command information and the Post command information including a command table on which a command group comprising zero, one or more statements are written ((Fig. 12A – PGC command table having Fig. 17 – VOB address information table; Col. 22, lines 26-40+),
- the Pre command information including a Pre command pointer which is written separately from the command table and which specifies the address of the command to be executed before the reproduction included in the command table (Fig. 17 – pre-processing command start address pointer; Col. 22, lines 26-40+),

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- the Post command information including a Post command pointer which is written separately from the command table and which specifies the address of the command to be executed after the reproduction included in the command table (Fig. 17 – post-processing command start address pointer; Col. 22, lines 26-40+),
- the Pre command information and the Post command information including a command pointer which specifies the address of each of the Pre command pointer and the Post command pointer (in at least Col. 20, lines 18-39+; Col. 22, lines 26-40+; Figs. 12B, 17 – VOB address information table as well as pre/post-processing command start address pointers),
- said information reproducing method comprising:
 - a reading process of physically reading information from said information recording medium (Figs. 13, 24 – optical disc drive physically reading on device PGC information #1); and
 - a reproducing process of reproducing the object data included in the information read by said reading device, on the basis of the reproduction control information and the play list information included in the information read by said reading device (Figs. 13, 24 – optical disc drive physically reading on device PGC information #1 to video and audio output; Fig. 22).

Regarding Claim 23, Murase et al. teaches an information recording and reproducing apparatus for recording one or a plurality of titles onto and reproducing at least one portion of the recorded titles from an information recording medium on which one or the plurality of titles, each of which is a logically-grouped information unit, are recorded (Fig. 2A – recording medium having volume area, Fig. 4A with logical blocks of various title sets, Fig. 4B; recording by device

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Figs. 22 and 24; Col. 4, lines 40-60+, and playback), said information recording medium comprising:

- an object data file for storing object data which constitutes a series of content information (Fig. 5 – each title set containing various VOB);
- a play list information file for storing a plurality of play list information which defines a reproduction sequence of the object data stored in said object data file by a unit of play list which is logically accessible (in at least Figs. 12A, 15A, 16 – program chains for each title set); and
- a disc information file for storing a plurality of information groups including, as reproduction control information for controlling the reproduction of said object data file (Fig. 12A - video title set management information),
 - (i) play list specification information for specifying one play list information which defines the play list to be reproduced from among the plurality of play list information stored in said play list information file (in at least Figs. 12A and 12B - specifying specific program chain from PGC management information table),
 - (ii) Pre command information which indicates a command to be executed before the reproduction based on the one play list information (in at least Col. 20, lines 18-39+; Figs. 12B, 17 – pre-processing command), and
 - (iii) Post command information which indicates a command to be executed after the reproduction based on the one play list information (in at least Col. 20, lines 18-39+; Figs. 12B, 17 – post-processing command),
- the title being logically comprising one or more than one of the plurality of information groups (Figs. 4A and 4B),

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- the Pre command information and the Post command information including a command table on which a command group comprising zero, one or more statements are written (Fig. 12A – PGC command table having Fig. 17 – VOB address information table; Col. 22, lines 26-40+),
- the Pre command information including a Pre command pointer which is written separately from the command table and which specifies the address of the command to be executed before the reproduction included in the command table (Fig. 17 – pre-processing command start address pointer; Col. 22, lines 26-40+),
- the Post command information including a Post command pointer which is written separately from the command table and which specifies the address of the command to be executed after the reproduction included in the command table (Fig. 17 – post-processing command start address pointer; Col. 22, lines 26-40+),
- the Pre command information and the Post command information including a command pointer which specifies the address of each of the Pre command pointer and the Post command pointer (in at least Col. 20, lines 18-39+; Col. 22, lines 26-40+; Figs. 12B, 17 – VOB address information table as well as pre/post-processing command start address pointers),
- said information recording and reproducing apparatus comprising:
 - a first recording device for recording the object data file (Fig. 25 – storage in buffer memory of VOB);
 - a second recording device for recording the play list information file (Fig. 26 – storage of program chain in PGC information buffer, 31);
 - a third recording device for recording the disc information file (Fig. 26 – storage of management information in management information pack buffer, 95);

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- a reading device for physically reading information from said information recording medium (Figs. 13, 24 – optical disc drive physically reading on device PGC information #1); and
- a reproducing device for reproducing the object data included in the information read by said reading device, on the basis of the reproduction control information and the play list information included in the information read by said reading device (Figs. 13, 24 – optical disc drive physically reading on device PGC information #1 to video and audio output; Fig. 22).

Regarding Claim 24, Murase et al. teaches an information recording and reproducing method of recording one or a plurality of titles onto and reproducing at least one portion of the recorded titles from an information recording medium on which one or the plurality of titles, each of which is a logically-grouped information unit, are recorded (Fig. 2A – recording medium having volume area, Fig. 4A with logical blocks of various title sets, Fig. 4B; recording by device Figs. 22 and 24; Col. 4, lines 40-60+, and playback), said information recording medium comprising:

- an object data file for storing object data which constitutes a series of content information (Fig. 5 – each title set containing various VOB);
- a play list information file for storing a plurality of play list information which defines a reproduction sequence of the object data stored in said object data file by a unit of play list which is logically accessible (in at least Figs. 12A, 15A, 16 – program chains for each title set); and

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- a disc information file for storing a plurality of information groups including, as reproduction control information for controlling the reproduction of said object data file (Fig. 12A - video title set management information),
 - (i) play list specification information for specifying one play list information which defines the play list to be reproduced from among the plurality of play list information stored in said play list information file (in at least Figs. 12A and 12B - specifying specific program chain from PGC management information table),
 - (ii) Pre command information which indicates a command to be executed before the reproduction based on the one play list information (in at least Col. 20, lines 18-39+; Figs. 12B, 17 – pre-processing command), and
 - (iii) Post command information which indicates a command to be executed after the reproduction based on the one play list information (in at least Col. 20, lines 18-39+; Figs. 12B, 17 – post-processing command),
- the title being logically comprising one or more than one of the plurality of information groups (Figs. 4A and 4B),
- the Pre command information and the Post command information including a command table on which a command group comprising zero, one or more statements are written (Fig. 12A – PGC command table having Fig. 17 – VOB address information table; Col. 22, lines 26-40+),
- the Pre command information including a Pre command pointer which is written separately from the command table and which specifies the address of the command to be executed before the reproduction included in the command table (Fig. 17 – pre-processing command start address pointer; Col. 22, lines 26-40+),

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- the Post command information including a Post command pointer which is written separately from the command table and which specifies the address of the command to be executed after the reproduction included in the command table (Fig. 17 – post-processing command start address pointer; Col. 22, lines 26-40+),
- the Pre command information and the Post command information including a command pointer which specifies the address of each of the Pre command pointer and the Post command pointer (in at least Col. 20, lines 18-39+; Col. 22, lines 26-40+; Figs. 12B, 17 – VOB address information table as well as pre/post-processing command start address pointers),
- said information recording and reproducing method comprising:
 - a first recording process of recording the object data file (Fig. 25 – storage in buffer memory of VOB);
 - a second recording process of recording the play list information file (Fig. 26 – storage of program chain in PGC information buffer, 31);
 - a third recording process of recording the disc information file (Fig. 26 – storage of management information in management information pack buffer, 95);
 - a reading process of physically reading information from the information recording medium (Figs. 13, 24 – optical disc drive physically reading on device PGC information #1); and
 - a reproducing process of reproducing the object data included in the information read by said reading device, on the basis of the reproduction control information and the play list information included in the information read by said reading device (Figs. 13, 24 – optical disc drive physically reading on device PGC information #1 to video and audio output; Fig. 22).

Regarding Claim 25, Murase et al. teaches a computer program product for controlling record and for tangibly embodying a program of instructions executable by a computer to make the computer function (Col. 32, lines 60-65 – implementation of software) as at least one portion of a first recording device, a second recording device, and a third recording device,

- the computer being provided in an information recording apparatus for recording one or a plurality of titles, each of which is a logically-grouped information unit, onto an information recording medium (Fig. 2A – recording medium having volume area, Fig. 4A with logical blocks of various title sets, Fig. 4B; recording by device Figs. 22 and 24; Col. 4, lines 40-60+, and playback),
- said information recording apparatus comprising:
- said first reading device for recording an object data file for storing object data which constitutes a series of content information (Fig. 25 – storage in buffer memory of VOB);
- said second recording device for recording a play list information file for storing a plurality of play list information which defines a reproduction sequence of the object data stored in said object data file by a unit of play list which is logically accessible (Fig. 26 – storage of program chain in PGC information buffer, 31); and
- said third recording device for recording a disc information file for storing a plurality of information groups including, as reproduction control information for controlling the reproduction of said object data file (Fig. 26 – storage of management information in management information pack buffer, 95),
 - (i) play list specification information for specifying one play list information which defines the play list to be reproduced from among the plurality of play list

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- information stored in said play list information file (in at least Figs. 12A and 12B - specifying specific program chain from PGC management information table),
- (ii) Pre command information which indicates a command to be executed before the reproduction based on the one play list information (in at least Col. 20, lines 18-39+; Figs. 12B, 17 – pre-processing command), and
 - (iii) Post command information which indicates a command to be executed after the reproduction based on the one play list information (in at least Col. 20, lines 18-39+; Figs. 12B, 17 – post-processing command),
- the title being logically comprising one or more than one of the information groups (Figs. 4A and 4B),
 - the Pre command information and the Post command information including a command table on which a command group comprising zero, one or more statements are written (Fig. 12A – PGC command table having Fig. 17 – VOB address information table; Col. 22, lines 26-40+),
 - the Pre command information including a Pre command pointer which is written separately from the command table and which specifies the address of the command to be executed before the reproduction included in the command table (Fig. 17 – pre-processing command start address pointer; Col. 22, lines 26-40+),
 - the Post command information including a Post command pointer which is written separately from the command table and which specifies the address of the command to be executed after the reproduction included in the command table (Fig. 17 – post-processing command start address pointer; Col. 22, lines 26-40+),
 - the Pre command information and the Post command information including a command pointer which specifies the address of each of the Pre command pointer and the Post

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command pointer (in at least Col. 20, lines 18-39+; Col. 22, lines 26-40+; Figs. 12B, 17 – VOB address information table as well as pre/post-processing command start address pointers).

Regarding Claim 26, Murase et al. teaches a computer program product for controlling reproduction and for tangibly embodying a program of instructions executable by a computer to make the computer function (Col. 32, lines 60-65 – implementation of software on a device) as at least one portion of a reading device and a reproducing device,

- the computer being provided in an information reproducing apparatus for reproducing at least one portion of recorded titles from an information recording medium on which one or the plurality of titles, each of which is a logically-grouped information unit, are recorded (Fig. 2A – recording medium having volume area, Fig. 4A with logical blocks of various title sets, Fig. 4B; recording by device Figs. 22 and 24; Col. 4, lines 40-60+, and playback), said information recording medium comprising:
 - an object data file for storing object data which constitutes a series of content information (Fig. 5 – each title set containing various VOB);
 - a play list information file for storing a plurality of play list information which defines a reproduction sequence of the object data stored in said object data file by a unit of play list which is logically accessible (in at least Figs. 12A, 15A, 16 – program chains for each title set); and
 - a disc information file for storing a plurality of information groups including, as reproduction control information for controlling the reproduction of said object data file (Fig. 12A - video title set management information),

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- (i) play list specification information for specifying one play list information which defines the play list to be reproduced from among the plurality of play list information stored in said play list information file (in at least Figs. 12A and 12B - specifying specific program chain from PGC management information table),
 - (ii) Pre command information which indicates a command to be executed before the reproduction based on the one play list information (in at least Col. 20, lines 18-39+; Figs. 12B, 17 – pre-processing command), and
 - (iii) Post command information which indicates a command to be executed after the reproduction based on the one play list information (in at least Col. 20, lines 18-39+; Figs. 12B, 17 – post-processing command),
- the title being logically comprising one or more than one of the plurality of information groups (Figs. 4A and 4B),
- the Pre command information and the Post command information including a command table on which a command group comprising zero, one or more statements are written (Fig. 12A – PGC command table having Fig. 17 – VOB address information table; Col. 22, lines 26-40+),
- the Pre command information including a Pre command pointer which is written separately from the command table and which specifies the address of the command to be executed before the reproduction included in the command table (Fig. 17 – pre-processing command start address pointer; Col. 22, lines 26-40+),
- the Post command information including a Post command pointer which is written separately from the command table and which specifies the address of the command to be executed after the reproduction included in the command table (Fig. 17 – post-processing command start address pointer; Col. 22, lines 26-40+),

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- the Pre command information and the Post command information including a command pointer which specifies the address of each of the Pre command pointer and the Post command pointer (in at least Col. 20, lines 18-39+; Col. 22, lines 26-40+; Figs. 12B, 17 – VOB address information table as well as pre/post-processing command start address pointers),
- said information reproducing apparatus comprising:
 - said reading device for physically reading information from said information recording medium (Figs. 13, 24 – optical disc drive physically reading on device PGC information #1); and
 - said reproducing device for reproducing the object data included in the information read by said reading device, on the basis of the reproduction control information and the play list information included in the information read by said reading device (Figs. 13, 24 – optical disc drive physically reading on device PGC information #1 to video and audio output; Fig. 22).

Regarding Claim 27, Murase et al. teaches a computer program product for controlling record and reproduction and for tangibly embodying a program of instructions executable by a computer to make the computer function (Col. 32, lines 60-65 – implementation of software on a device) as at least one portion of a first recording device, a second recording device, a third recording device, a reading device, and a reproducing device,

- the computer being provided in An information recording and reproducing apparatus for recording one or a plurality of titles onto and reproducing at least one portion of the recorded titles from an information recording medium on which one or the plurality of

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titles, each of which is a logically-grouped information unit, are recorded, said information recording medium comprising:

- an object data file for storing object data which constitutes a series of content information;
- a play list information file for storing a plurality of play list information which defines a reproduction sequence of the object data stored in said object data file by a unit of play list which is logically accessible; and
- a disc information file for storing a plurality of information groups including, as reproduction control information for controlling the reproduction of said object data file,
 - (i) play list specification information for specifying one play list information which defines the play list to be reproduced from among the plurality of play list information stored in said play list information file (in at least Figs. 12A and 12B - specifying specific program chain from PGC management information table),
 - (ii) Pre command information which indicates a command to be executed before the reproduction based on the one play list information (in at least Col. 20, lines 18-39+; Figs. 12B, 17 – pre-processing command), and
 - (iii) Post command information which indicates a command to be executed after the reproduction based on the one play list information (in at least Col. 20, lines 18-39+; Figs. 12B, 17 – post-processing command),
- the title being logically comprising one or more than one of the plurality of information groups (Figs. 4A and 4B),
- the Pre command information and the Post command information including a command table on which a command group comprising zero, one or more statements are written

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(Fig. 12A – PGC command table having Fig. 17 – VOB address information table; Col. 22, lines 26-40+),

- the Pre command information including a Pre command pointer which is written separately from the command table and which specifies the address of the command to be executed before the reproduction included in the command table (Fig. 17 – pre-processing command start address pointer; Col. 22, lines 26-40+),
- the Post command information including a Post command pointer which is written separately from the command table and which specifies the address of the command to be executed after the reproduction included in the command table (Fig. 17 – post-processing command start address pointer; Col. 22, lines 26-40+),
- the Pre command information and the Post command information including a command pointer which specifies the address of each of the Pre command pointer and the Post command pointer (in at least Col. 20, lines 18-39+; Col. 22, lines 26-40+; Figs. 12B, 17 – VOB address information table as well as pre/post-processing command start address pointers),
- said information recording and reproducing apparatus comprising:
 - said first recording device for recording the objects data file (Fig. 25 – storage in buffer memory of VOB);
 - said second recording device for recording the play list information file (Fig. 26 – storage of program chain in PGC information buffer, 31);
 - said third recording device for recording the disc information file (Fig. 26 – storage of management information in management information pack buffer, 95);

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- said reading device for physically reading information from said information recording medium (Figs. 13, 24 – optical disc drive physically reading on device PGC information #1); and
- said reproducing device for reproducing the object data included in the information read by said reading device, on the basis of the reproduction control information and the play list information included in the information read by said reading device (Figs. 13, 24 – optical disc drive physically reading on device PGC information #1 to video and audio output; Fig. 22).

Regarding Claim 28, Murase et al. teaches a data structure including a control signal, which includes one or a plurality of titles, each of which is a logically-grouped information unit (Fig. 2A – recording medium having volume area, Fig. 4A with logical blocks of various title sets, Fig. 4B; recording by device Figs. 22 and 24), said data structure comprising:

- an object data file for storing object data which constitutes a series of content information (Fig. 5 – each title set containing various VOB);
- a play list information file for storing a plurality of play list information which defines a reproduction sequence of the object data stored in said object data file by a unit of play list which is logically accessible (in at least Figs. 12A, 15A, 16 – program chains for each title set); and
- a disc information file for storing a plurality of information groups including, as reproduction control information for controlling the reproduction of said object data file (Fig. 12A - video title set management information),
 - (i) play list specification information for specifying one play list information which defines the play list to be reproduced from among the plurality of play list

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- information stored in said play list information file (in at least Figs. 12A and 12B - specifying specific program chain from PGC management information table),
- (ii) Pre command information which indicates a command to be executed before the reproduction based on the one play list information (in at least Col. 20, lines 18-39+; Figs. 12B, 17 – pre-processing command), and
 - (iii) Post command information which indicates a command to be executed after the reproduction based on the one play list information (in at least Col. 20, lines 18-39+; Figs. 12B, 17 – post-processing command),
- the title being logically comprising one or more than one of the plurality of information groups (Figs. 4A and 4B),
 - the Pre command information and the Post command information including a command table on which a command group comprising zero, one or more statements are written (Fig. 12A – PGC command table having Fig. 17 – VOB address information table; Col. 22, lines 26-40+),
 - the Pre command information including a Pre command pointer which is written separately from the command table and which specifies the address of the command to be executed before the reproduction included in the command table (Fig. 17 – pre-processing command start address pointer; Col. 22, lines 26-40+),
 - the Post command information including a Post command pointer which is written separately from the command table and which specifies the address of the command to be executed after the reproduction included in the command table (Fig. 17 – post-processing command start address pointer; Col. 22, lines 26-40+),
 - the Pre command information and the Post command information including a command pointer which specifies the address of each of the Pre command pointer and the Post

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command pointer (in at least Col. 20, lines 18-39+; Col. 22, lines 26-40+; Figs. 12B, 17 – VOB address information table as well as pre/post-processing command start address pointers).

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- US 6,0674,00 A (Saeki et al.) – reproduction apparatus and method for a multimedia optical disc having improved interactive reproduction having pre and post commands with PGC information.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Choi whose telephone number is (571) 272-9594. The examiner can normally be reached on Monday - Friday 9:00AM - 5:30PM (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on (571) 272-7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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